

REMARKS

Claims 1-12 and 14-18, as amended, are before the Examiner for consideration. Claim 1 now contains the limitations of claim 13.

1. Claims 1-12 and 14-18 were rejected under 35 U.S.C. 102(b) as anticipated by Mizuno et al. '029. Claim 1 is amended to incorporate the limitations of claim 13 (a claim not so rejected) and any rejection on this basis is now moot.

Mizuno et al. '029 describes an electrically heated honeycomb that is made of a conductive metal and has at least two electrodes. A thin coating of a heat-resistant metal oxide is applied on the metal honeycomb structure to enhance resistance to heat, oxidation and corrosion (col. 3, lines 48-53). A resisting adjusting means (RAM) is provided on the honeycomb structure between the electrodes (col. 4, lines 65-68). The RAM may be a slit or slits of any length, formed in any direction at any position (col. 5, lines 1-5).

Claim 1 now recites the nonmetallic, ceramic materials of claim 13. These ceramic materials do not have the thermal conductivity of metals. These ceramic materials are not being used to conduct electricity to function as a heater. The function of the

slits is described on page 3, lines 8-13, of the specification reading:

By forming the slits in this way, each portion of the honeycomb structure can deform freely without being restricted by other portion even when an uneven temperature distribution appears therein; as a result, reduction in thermal stress is possible and generation of cracks can be prevented.

The 35 USC 102 rejection based on Mizuno et al. '029 does not apply to claim 13. Thus Mizuno et al. '029 does not anticipate claim 1 as amended. Indeed, the rejection is moot.

2. Claim 13 stands rejected under 35 U.S.C. 103(a) as unpatentable over Mizuno et al. '029 as applied to Claim 1 above and further in view of Abe et al. '697. Claim 13 is canceled. However, to the extent that amended claim 1 represents the subject matter of claim 13, any proposed rejection of amended claim 1 on this basis is traversed.

Mizuno et al. '029, as already mentioned, relates to an electrically heated honeycomb made of conductive metal where RAM is provided on the honeycomb structure between the electrodes (col. 4, lines 65-68). This RAM can be in the form of slits; the purpose of

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the RAM is to control the heat generation characteristics of the heater by adjusting a resistance of the structure. The catalytic converter aspect accordingly can be heated locally or in its entirety depending on the converter's application (col. 3, lines 22-30).

Abe et al. '697 is cited to show a honeycomb structure made of cordierite (col. 4, lines 18-24). The cited passage reads:

The material for the honeycomb structure may be a metal. But, the material is preferably a ceramic, particularly a porous cordierite, because it has a low heat conductivity and gives a low heat conduction from the catalyst portion to the adsorbent portion, which prevents the quick temperature increase of the adsorbent portion and retards the timing of the desorption of adsorbed HC.

This portion of the reference acknowledges the significant difference between the preferred ceramic cordierite and a metal honeycomb - the low heat conduction of the ceramic. This low heat conduction is a property completely different from the property displayed by a metal honeycomb because metals conduct electricity and have very good thermal conductivity. Thus there can be no proper suggestion to substitute for the metal conductor in Mizuno et al. '029 used for electrically heating the exhaust gas with the

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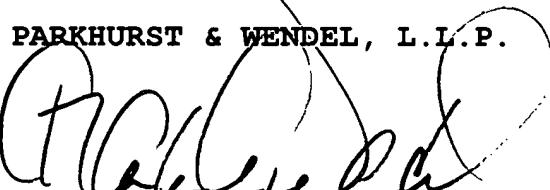
ceramic cordierite material of Abe et al. '697, which does not have that required electrical conductivity. Such a substitution would render the Mizuno et al. '029 device unable to carry out its intended purpose. Accordingly, review and withdrawal of this rejection are requested.

Applicants respectfully submit that the present application is now in condition for allowance. Accordingly, the Examiner is requested to issue a Notice of Allowance for all pending claims.

Should the Examiner deem that any further action by the applicants would be desirable for placing this application in even better condition for issue, the Examiner is requested to telephone applicants' undersigned representative at the number listed below.

Respectfully submitted,

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